

Mikulin, John

From: Mikulin, John
Sent: Friday, July 10, 2020 1:55 PM
To: Mikulin, John
Subject: CATI Liaisons 7/9/20: Next Steps & Notes
Attachments: CATI_2020 Work Plan_FINAL_2-13-20.pdf; CFAC-Agenda-July 15 2020.pdf

Importance: High

Greetings [Clean Air Technology Initiative \(CATI\)](#) Liaisons & invited guests:

Below you will find my notes from the Thursday 7/9/20 CATI Liaisons teleconference. For your convenience, I have inserted the notes on next steps immediately below. Please review these notes and reply to this email message with any corrections, additions, comments and/or questions.

The next CATI Liaisons teleconference is scheduled for Thursday 8/13/20 from 10:00-11:00AM PDT/1:00-2:00PM EDT. An agenda will be distributed via email prior to 8/13. In the meantime, please feel free contact me with any CATI-related questions, or suggested agenda items. Thanks – John

NEXT STEPS

- **Personal Protective Equipment (PPE) for California Agencies**
 - o Caltrans accepting public agency procurement requests for PPE.
 - o **Contact Eric Fredericks if your agency needs PPE in California:** 916-657-4458 / eric.fredericks@dot.ca.gov
- **Caltrans COVID-19 Impact Report**
 - o Daily report includes information on California: travel volumes, road conditions & maintenance needs, employment impacts, border activities, freight & port operations, warehouse and port container storage capacity.
 - o **Send email to join the email list:** CSFAP@dot.ca.gov
- **EPA Anaerobic Digester Grant Opportunity**
 - o \$3M nationwide; \$50-300k/project to support: 1) organic waste diversion; 2) demonstration and/or implementation of solutions that increase digester utilization; and 3) establishment/expansion of partnerships that develop digester capacity.
 - o **Applications due by 2PM PDT on 7/14/20**
 - Main Page – <https://www.epa.gov/sustainable-management-food/sustainable-materials-management-2020-anaerobic-digestion-funding>
 - Grants.gov Page – <https://www.grants.gov/web/grants/view-opportunity.html?oppId=326903>
- **EPA Clean Air Excellence Awards**
 - o Through this program, EPA recognizes and honors individuals and organizations whose efforts have helped to make progress in achieving cleaner air. The award recipients are selected for developing innovative, replicable, and sustainable programs; serving as pioneers in their fields; and improving air quality either directly or indirectly through reduced emissions of criteria pollutants, hazardous air pollutants, and/or greenhouse gases.
 - o The five awards categories are: (1) Clean Air Technology; (2) Community Action; (3) Education/Outreach (4) State/Tribal/Local Air Quality Policy Innovations; and (5) Transportation Efficiency Innovations. In addition, the Clean Air Excellence Award Program will recognize two special award categories: (1) the Gregg Cooke Visionary Program Award,

honoring a former EPA Regional Administrator, is given to the air quality project or program that successfully blends two or more of the existing awards categories; and (2) the Thomas W. Zosel Outstanding Individual Achievement Award, honoring a former member of the CAAAC and environmental leader at 3M, recognizes one individual for their outstanding achievement, leadership, and lasting commitment to promote clean air and achieve better air quality.

- **Applications due by 2PM PDT on 7/31/20**

- Main Page - <https://www.epa.gov/caaac/clean-air-excellence-awards>
- Application Documents - <https://www.epa.gov/caaac/clean-air-excellence-awards-application-information>
- Contact - Catrice Jefferson: jefferson.catrice@epa.gov

- **DOE H2@Scale Cooperative Research & Development Agreement (CRADA) Request for Proposals**

- FY20 CRADA RFP = \$24M nationwide to support research & development partnerships focused on: 1) hydrogen fueling technologies for medium- and heavy-duty fuel cell vehicles; and 2) technical barriers to hydrogen blending in natural gas pipelines.

- **Proposals due by 4PM PDT on 8/14/20**

- Press Release 7/1/20 - <https://www.energy.gov/eere/articles/doe-announces-request-proposals-h2scale>
- CRADA RFP Page - <https://www.nrel.gov/hydrogen/h2-at-scale-crada-call.html>
- SAM.gov Page - <https://beta.sam.gov/opp/8d898c4057d1497ba26d52d508bc595d/view>
- Contact: H2atScaleCRADACall@nrel.gov

- **Heavy-Duty Vehicle NOx Rulemaking**

- CATI Liaisons should engage in the CARB and EPA HDV NOx rule development processes.
- CARB HD Low NOx Omnibus Rulemaking
 - Main Page - <https://ww2.arb.ca.gov/our-work/programs/heavy-duty-low-nox>
 - Hearing 8/27/20 @ 9AM PDT - <https://ww3.arb.ca.gov/regact/2020/hdomnibuslownox/notice.pdf>
 - **Written comments due by 8/25/20** - <https://www.arb.ca.gov/lispub/comm/bclist.php>
 - Contacts: Kim Heroy-Rogalski (kim.heroy-rogalski@arb.ca.gov / 916-327-2200) and/or Bill Robertson (bill.robertson@arb.ca.gov / 626-459-4467)
- CARB Optional Low NOx Emission Standards
 - Main Page - <https://ww3.arb.ca.gov/msprog/onroad/optionnox/optionnox.htm>
 - Low NOx Certified Engines - https://ww3.arb.ca.gov/msprog/onroad/optionnox/optional_low_nox_certified_hd_engines.pdf
 - Contact: Daniel Hawelti - daniel.hawelti@arb.ca.gov / 626-450-6149
- EPA Cleaner Trucks Initiative
 - Main Page - <https://www.epa.gov/regulations-emissions-vehicles-and-engines/cleaner-truck-initiative>

- **CARB Zero Emission Freight & Marine Funding Opportunity**

- \$35M available statewide to support: 1) replacement of airport ground support equipment, port cargo handling equipment, and heavy-lift forklifts with new zero-emission technologies; 2) repower marine engines for ferries, tugboats, and towboats with battery-electric or fuel cell technologies; and 3) install shore power at berths that serve ocean-going vessels.

- **Applications due by 1PM PDT on 8/31/20**

- Main Page - <https://www.californiavwtrust.org/zero-freight-marine/>
- Online Application - https://cleanairgrants.fluxx.io/user_sessions/new
- Contact: 1-844-9VW-FUND / CaliforniaVWTrust@baaqmd.gov

- **SJVAPCD Technology Advancement Program (TAP) Project Interest Form/Open Solicitation**

- TAP has shifted from a formal grant RFP process to a one-page interest form, which will help streamline the District's identification of prospective demonstration project development opportunities.
- **Open Project Solicitation - Direct potential clean air technology demonstration partners to SJVAPCD's TAP webpage:**
 - Main Page - <http://valleyair.org/grants/technologyadvancement.htm>
 - Project Interest Form - <http://valleyair.org/grants/documents/technologyadvancement/interest-form.pdf>
- **West Coast Collaborative Alternative Fuel Infrastructure Corridor Coalition (WCC AFICC)**
 - Strategic development plan seeking to highlight needed/desired M/HD-accessible EV, H2, LPG, CNG and/or LNG infrastructure investments in California, Oregon & Washington.
 - Main Page - <https://westcoastcollaborative.org/workgroup/wkgrp-fuels.htm#plan>
 - [Full Plan Document](#) (194 pp, 6.7 MB .pdf)
 - [Executive Summary](#) (24 pp, 1 MB .pdf)
 - [Highlights Fact Sheet](#) (2 pp, 232 KB .pdf)
 - [California Fact Sheet](#) (5 pp, 480 KB .pdf)
 - WCC AFICC Project Submission Form availability to be announced via the WCC Communicator email newsletter - [CLICK HERE TO JOIN](#)
 - Seeking to expand planning scope to include additional WCC states & territories.
- **CARB Clean Transportation Incentives Funding Plan**
 - CATI Liaisons should engage in the FY21-22 plan development process - <https://ww2.arb.ca.gov/our-work/programs/low-carbon-transportation-investments-and-air-quality-improvement-program/low-1>
- **CEC Clean Transportation Program Investment Plan**
 - CATI Liaisons should engage in the FY21-22 plan development process - <https://ww2.energy.ca.gov/transportation/arfvtp/investmentplans.html>
- **CPUC SB 350 Transportation Electrification Proceeding**
 - CATI Liaisons should contact CPUC and/or investor-owned electric utilities regarding EVSE infrastructure project development in the San Joaquin Valley & South Coast air basins.
 - Main Page - <http://www.cpuc.ca.gov/sb350te/>
 - Contacts:
 - CPUC – Carrie Sisto: cs8@cpuc.ca.gov / 415-703-2872
 - PG&E - Tracy Cheung: tbc4@pge.com
 - SCE - Glenn Chung: Glenn.Chung@sce.com
- **California Sustainable Freight Transport Initiative**
 - CATI Liaisons should continue to track & discuss California Sustainable Freight Action Plan (CSFAP) refinement & implementation processes.
 - CARB Sustainable Freight Transport Initiative - <http://www.arb.ca.gov/gmp/sfti/sfti.htm>
 - CSFAP Main Page - <https://dot.ca.gov/programs/transportation-planning/freight-planning/california-sustainable-freight-action-plan>
- **CATI Agenda Development**
 - Technology Funding Solicitations & Project Selections
 - John Mikulin/EPA follow up w/ relevant agency staff as appropriate to arrange CATI discussions.
 - SB350 Transportation Electrification Proceeding
 - John Mikulin/EPA follow up w/ CPUC staff as appropriate to arrange CATI discussions.
 - Sustainable Freight Planning
 - John Mikulin/EPA follow up w/ relevant agency staff as appropriate to arrange CATI discussions.
 - FAST Act Implementation in California

- John Mikulin/EPA follow up w/ Caltrans & US DOT staff as appropriate to arrange CATI discussions.
- West Coast Collaborative Medium & Heavy-Duty Alternative Fuel Infrastructure Corridor Coalition (WCC AFICC)
 - John Mikulin/EPA will arrange CATI discussions as appropriate.
- **Upcoming Events**
 - California Freight Advisory Committee Meeting
 - 7/15/20, 8:30AM-12PM PDT - *See meeting agenda in attached .pdf file.*
 - Main Page - <https://dot.ca.gov/programs/transportation-planning/freight-planning/ca-freight-advisory-committee>
 - Meeting will include discussion on California Freight Mobility Plan - <https://dot.ca.gov/programs/transportation-planning/freight-planning/ca-freight-advisory-committee/cfmp-2020>
 - CARB Workshop: Fuels & Infrastructure for a Carbon Neutral Economy
 - 7/15/20, 9AM-3:30PM PDT - Webinar
 - Meeting Notice - <https://content.govdelivery.com/accounts/CARB/bulletins/2935725>
 - Main Page - <https://ww2.arb.ca.gov/our-work/programs/carbon-neutrality>
 - CEC Workshops: ZEV Resilience & Three Revolutions
 - 7/15/20 @ 1PM PDT: Energy Resilience & ZEVs
 - Event Link - <https://energy.zoom.us/j/92713699171?pwd=MGNCbFlta1FxV1lnSGg0T1lKM0tEQT09>
 - Webinar ID: 927 1369 9171 Webinar Password: IEPR2020
 - 7/16/20 @ 9:30AM PDT: Three Revolutions, Opportunities, Challenges, and Intelligent Transportation Systems
 - Event Link - <https://energy.zoom.us/j/97979710454?pwd=VFNhdlF6ZmJhQjRmRURZLzFnV3JZUT09>
 - Webinar ID: 979 7971 0454 Webinar Password: IEPR2020
 - 7/16/20 @ 2:00 PM: Electrifying Transportation Network Companies
 - Event Link - <https://energy.zoom.us/j/96148393479?pwd=bkZRbWxnOHdNUjV3OVcyRnR2UzZEdz09>
 - Webinar ID: 961 4839 3479 Webinar Password: IEPR2020
 - CARB Heavy-Duty Engine & Vehicle Omnibus Regulation Hearing
 - 8/27/20 @ 9AM PDT - <https://ww3.arb.ca.gov/regact/2020/hdomnibuslownox/notice.pdf>
 - **Written comments due by 8/25/20** - <https://www.arb.ca.gov/lispub/comm/bclist.php>
 - West Coast Collaborative Partners Meeting/Green Transportation Summit & Expo
 - 5/24-26/21 – Tacoma, WA
 - Event Page - <http://www.gtsummitexpo.socialenterprises.net/>
 - *Many previously scheduled CATI partner events have been cancelled, or indefinitely postponed due to COVID-19 precautions.*

CATI Liaisons Teleconference Agenda & Notes

Thursday 7/9/20

10:00-11:00AM PDT/1:00-2:00PM EDT

1) Welcome & Roll Call

Attendees (22)

- CARB – Paul Arneja, Katherine Garrison, Andre Freeman

- CEC – Wendell Krell, Micah Wofford
- CPUC – Carrie Sisto
- Caltrans – Eric Fredricks
- SJVAPCD – Kevin Wing
- SCAQMD – Joe Lopat, Phil Barroca, Sam Cao
- US DOE
 - o VTO – Siddq Khan
 - o FCTO – Pete Devlin
 - o ORNL – Greg Moreland
 - o NREL – Margo Melendez
- US DOD
 - o USAF – Scott Dickenson
- US EPA
 - o OTAQ – Eric Junga, Denise Kearns
 - o R9 – Amy Zimpfer, Morgan Capilla, Penny McDaniel, John Mikulin

2) **CARB Advanced Clean Trucks Rulemaking – Paul Arneja/CARB**

- a. Overview of CARB’s Advanced Clean Trucks (ACT) rulemaking, which seeks to promote the development and use of zero-emission trucks to help achieve California’s various emission reduction mandates.
 - i. Main Page - <https://ww2.arb.ca.gov/our-work/programs/advanced-clean-trucks>
 - ii. Regulatory Documents - <https://ww2.arb.ca.gov/rulemaking/2019/advancedcleantrucks>
 - iii. UCS Analysis of CARB ACT Rule 4/29/20 - <https://blog.ucsusa.org/jimmy-odea/the-biggest-step-to-date-on-electric-trucks>
- b. Brief recap of the 6/25/20 CARB hearing on ACT rule adoption including highlights/themes from stakeholder testimony.
 - i. Hearing Agenda - <https://ww2.arb.ca.gov/ma062520>
 - ii. Staff Presentation - <https://ww3.arb.ca.gov/board/books/2020/062520/20-6-3pres.pdf>
- c. Discuss next steps related to CARB’s ACT rulemaking.

NOTES

- December 2019 Hearing
 - o Most stakeholders emphasized need for more stringent HD ZEV sales requirements.
- April 2020 rule modifications
 - o Greater ZEV sales requirements for OEMs
 - o 2x increase in HD ZEVS by 2030
 - o Need tractors to support SBPB CAAP
 - o Change reporting requirements to streamline vehicle data acquisition
- ACT Adoption Hearing 6/25/20
 - o CARB Board unanimously approved ACT rulemaking.
 - o Many stakeholders testified during the 6-hour hearing.
 - o NGOs were largely satisfied with the rule as a needed step toward HD ZEV deployment in California.
 - o CalETC & CALSTART also voiced support for ACT goals to kick start HD ZEV markets.
 - o OEMs want simultaneous implementation of ACT sales and fleet purchase requirements.
 - CARB is committed to future ZEV fleet rule development
 - o CTA & ATA
 - Remained neutral on the rulemaking.
 - Understand need for HD ZEV product development.
 - Voiced support for changes to fleet reporting requirements.
 - Business & fleet stakeholders engaging w/ CARB on ACT implementation and ZEV fleet rule development.

- Deliberations
 - o Rule is needed to help achieve California's climate change and air quality goals.
 - o California's disadvantaged communities need to be protected from truck emissions.
 - Clean up warehouses & ports that burden disproportionately polluted communities.
 - o Additional steps are needed to clean up trucking sector:
 - HD NOx omnibus rule hearing set for 8/27/20
 - ZEV fleet rules under development.
 - Also examining other HD ZEV measures: state fleet purchasing, ZEV zones, contracting requirements.
- CARB ACT Resolution Goals
 - o Electrify all vehicles by 2045 as technically feasible
 - o All ZEV drayage, public & delivery fleets by 2035
- Next Steps
 - o Wrapping up final statement of reasons
 - o Submitting to OAL soon
 - o Companion ZEV fleet rule development process underway
 - Initial workshop in February 2020 workshop
 - Follow up workshop in August 2020.
 - Rule proposal by the end of 2021.

Q&A

- Quantification of emission reductions from ACT by air district?
 - o See statewide emission reduction benefits in reg docs:
 - See pp.34-35 @ <https://ww3.arb.ca.gov/regact/2019/act2019/finalea.pdf>
 - See pp.14-16 @ <https://ww3.arb.ca.gov/regact/2019/act2019/30dayatttd.pdf>
 - o Regional health benefits also included in reg docs:
 - See p.7 @ <https://ww3.arb.ca.gov/regact/2019/act2019/30dayatttc.pdf>
 - o CARB has more localized emission reduction analysis that can be shared with AQMDs
 - Will be helpful for aggregate NAAQS SIP commitments in SJV & SC
- Which trucking sectors will drive ACT sales requirements?
 - o Attachment B outlines reasoning - <https://ww3.arb.ca.gov/regact/2019/act2019/30dayatttb.pdf>
 - o SPBP CAAP 100% ZEV drayage by 2035 = 17000 ZEV tractors
 - <https://cleanairactionplan.org/strategies/trucks/>
 - o All major OEMs have HD ZEV product development demos & plans underway (e.g., DTNA, Volvo, PACCAR).
 - o New OEMs are entering the market as well (e.g., Tesla, Nikola).
 - o TCO for BEV tractors are superior vs diesel baseline
 - o Class 2b-3 HD pickups & vans will be available from multiple OEM (e.g., Tesla, Ford, GM, Rivian).
 - o Increased ACT requirements post 2030 to help meet 2045 carbon neutrality goals.
- CAA Section 177 state adoption of ACT rule?
 - o NESCAUM states have indicated interest in adopting the ACT
 - o Multi-state MOU under development to advance HD ZEV market throughout the US
 - o Implementation concerns will be addressed on a state by state basis.
- Final statement of reasons and reg order?
 - o Final SOR pending response to stakeholder comments received
 - o Final reg order same as proposed on 6/25 - <https://ww3.arb.ca.gov/regact/2019/act2019/appa.pdf>
- Cost analysis for HD ZEV procurement?
 - o Attachment C includes rule cost-benefit analysis - <https://ww3.arb.ca.gov/regact/2019/act2019/30dayatttc.pdf>
 - o ZEV upfront costs will be higher than ICEV, but TCO will be lower for ZEVs
- Out of state trucks?

- ACT only applies to truck sales in California.
- No used commercial vehicles allowed under 7500 miles in California.
- ACT is an OEM rule, and OEMs may choose to sell vehicles out of state.
- ZEV fleet rule will address purchasing requirements and in-use operation.
- SB1 useful life provision & CARB HD ZEV programs?
 - Commercial vehicles must be in-use for 18 years, or 800k miles over 13 years before replacement can be required by the state.
 - Upcoming ZEV fleet purchase requirements have no nexus w/ SB1 useful life provision.
 - Green contracting provisions are another instrument for supporting ZEV deployment
 - ZEV zones in specific geographic areas would also help.
- Warrantee components in ACT?
 - CARB ZEV powertrain certification will be mandatory after MY2024
 - 3 years, 50k miles
 - PHEVs are same as ICEVs from a warrantee perspective.
- Communication of anticipated ACT outcomes (emissions & vehicles)?
 - CARB will work to develop summaries of emission reduction benefits and sales projection numbers.
 - See p.10 @ <https://ww3.arb.ca.gov/regact/2019/act2019/30dayattc.pdf>

3) CATI Liaisons Coordination: COVID-19 Updates, Agenda Development & Upcoming Events – All

- a. Updates regarding impacts of the COVID-19 pandemic on CATI Liaison agencies' operations and capacity.
- b. Identify discussion topics and/or desired speakers for upcoming CATI Liaisons teleconference agendas (next session scheduled for 8/13/20).
- c. Discuss upcoming events that will be hosted and/or sponsored by CATI partners, as well as opportunities for collaborative engagement in event planning and/or support.
 - i. CARB Workshop: Fuels & Infrastructure for Carbon Neutral Economy
 1. 7/15/20, 9AM-3:30PM PDT - Webinar
 2. Meeting Notice
 - <https://content.govdelivery.com/accounts/CARB/bulletins/2935725>
 3. Main Page - <https://ww2.arb.ca.gov/our-work/programs/carbon-neutrality>
 - ii. CEC Workshops: ZEV Resilience & Three Revolutions
 1. 7/15/20 @ 1PM PDT: Energy Resilience & ZEVs
 - A. Event Link - <https://energy.zoom.us/j/92713699171?pwd=MGNCbFlta1FxV1lnSGg0T1lKM0tEQT09>
 - B. Webinar ID: 927 1369 9171 Webinar Password: IEPR2020
 2. 7/16/20 @ 9:30AM PDT: Three Revolutions, Opportunities, Challenges, and Intelligent Transportation Systems
 - Event Link - <https://energy.zoom.us/j/97979710454?pwd=VFNhdlF6ZmJhQjRmRURZLzFnV3JZUT09>
 - A. Webinar ID: 979 7971 0454 Webinar Password: IEPR2020
 3. 7/16/20 @ 2:00 PM: Electrifying Transportation Network Companies
 - A. Event Link - <https://energy.zoom.us/j/96148393479?pwd=bkZRbWxnOHdNUjV3OVcyRnR2UzZEdz09>
 - B. Webinar ID: 961 4839 3479 Webinar Password: IEPR2020
 - iii. CARB Hearing: Heavy-Duty Engine & Vehicle Omnibus Regulation

1. 8/27/20 @ 9AM PDT - <https://ww3.arb.ca.gov/regact/2020/hdomnibuslownox/notice.pdf>
 2. Main Page - <https://ww2.arb.ca.gov/our-work/programs/heavy-duty-low-nox>
 3. **Written comments due by 8/25/20** - <https://www.arb.ca.gov/lispub/comm/bclist.php>
- iv. West Coast Collaborative Partners Meeting/Green Transportation Summit & Expo
1. 5/24-26/21 - Tacoma, WA
 2. Event Page - <http://www.gtsummitexpo.socialenterprises.net/>
- v. *Many previously scheduled CATI partner events have been cancelled, or indefinitely postponed due to COVID-19 precautions.*

NOTES

- CATI Agenda Development
 - o CARB HD omnibus briefing – August 2020
 - o Low NOx R&D project near completion – September 2020
 - o EPA CTI Rulemaking – October 2020
- California Freight Advisory Committee
 - o 7/15/20, 8:30AM-12PM PDT - *See meeting agenda in attached .pdf file.*
 - <https://dot.ca.gov/programs/transportation-planning/freight-planning/ca-freight-advisory-committee>
 - o Topics
 - CFMP release and response to comments - <https://dot.ca.gov/programs/transportation-planning/freight-planning/ca-freight-advisory-committee/cfmp-2020>
 - Updates of CSFAP - <https://ww2.arb.ca.gov/our-work/programs/california-sustainable-freight-action-plan>
 - COVID-19 response

4) CATI Round Robin: Policy, Projects & Funding – All

- a. Substantive sharing of policy development/implementation efforts, demonstration project results and/or funding opportunities.
 - i. CARB
 1. Heavy-Duty On-Road NOx Emissions Standards & Technology Development
 - A. Low NOx Rulemaking - <https://ww2.arb.ca.gov/our-work/programs/heavy-duty-low-nox>
 - B. Low NOx Research - <https://www.arb.ca.gov/research/veh-emissions/low-nox/low-nox.htm>
 - C. Low NOx Heavy-Duty Engine Technology Assessment Reports 9/29/15
 1. Natural Gas Engines - http://www.arb.ca.gov/msprog/tech/techreport/ng_tech_report.pdf
 2. Diesel Engines - http://www.arb.ca.gov/msprog/tech/techreport/diesel_tech_report.pdf
 - D. CARB Optional Low NOx Certified Heavy-Duty On-Road Engines
 1. Main Page - <https://ww2.arb.ca.gov/our-work/programs/optional-reduced-nox-standards>
 2. Certified Low NOx Engines - https://ww3.arb.ca.gov/msprog/onroad/optionnox/optional_low_no_x_certified_hd_engines.pdf
 3. Contact: Daniel Hawelti - daniel.hawelti@arb.ca.gov / 626-450-6149
 2. Advanced Clean Trucks
 - A. <https://ww2.arb.ca.gov/our-work/programs/advanced-clean-trucks>

3. Heavy-Duty GHG Phase 2 Emissions Standards
 - A. <https://www.arb.ca.gov/regact/2018/phase2/phase2.htm>
4. Heavy-Duty Technology & Fuel Assessments
 - A. <http://www.arb.ca.gov/msprog/tech/report.htm>
 - B. Commercial Tier 4 Harbor Craft Feasibility Study
 1. Technical feasibility and costs of installing Tier 4 engines and retrofit exhaust aftertreatment on in-use commercial harbor craft.
 2. Report 9/30/19 - <https://ww2.arb.ca.gov/sites/default/files/2019-10/cmafeasibilityreport09302019.pdf>
5. State Implementation Strategy
 - A. <http://www.arb.ca.gov/planning/sip/2016sip/2016sip.htm>
6. Mobile Source Strategy
 - A. <http://www.arb.ca.gov/planning/sip/2016sip/2016mobsrc.htm>
7. Climate Change Scoping Plan
 - A. <https://www.arb.ca.gov/cc/scopingplan/scopingplan.htm>
8. Sustainable Freight Transport Initiative
 - A. <http://www.arb.ca.gov/gmp/sfti/sfti.htm>
9. Innovative Clean Transit
 - A. <https://arb.ca.gov/msprog/ict/ict.htm>
10. Innovative Technology Regulation (ITR)
 - A. <http://www.arb.ca.gov/msprog/itr/itr.htm>
11. Fuel Cell Electric Vehicle Deployment & Hydrogen Fuel Station Network Development Evaluations
 - A. <https://www.arb.ca.gov/msprog/zevprog/hydrogen/hydrogen.htm>
12. Locomotive Emissions Standards & Technology Development
 - A. Main Page - <https://www.arb.ca.gov/railyard/railyard.htm>
 - B. Petition Document 4/13/17 - https://www.arb.ca.gov/railyard/docs/final_locomotive_petition_and_cover_letter_4_13_17.pdf
 - C. Freight Locomotive Technology Assessment 11/28/16 - https://www.arb.ca.gov/msprog/tech/techreport/final_rail_tech_assessment_11282016.pdf
 - D. University of Illinois Freight Rail Report 6/22/16 - https://www.arb.ca.gov/railyard/docs/uoi_rpt_06222016.pdf
13. California VW Settlement Investments
 - A. ZEV Investment Plan
 1. Main Page - https://www.arb.ca.gov/msprog/vw_info/vsi/vw-zevinvest/vw-zevinvest.htm
 2. CARB Cycle 1 Plan Analysis 7/21/17 - https://www.arb.ca.gov/msprog/vw_info/vsi/vw-zevinvest/documents/staff_analysis_072117.pdf
 3. DRAFT Cycle 2 Plan 10/3/18 - https://www.arb.ca.gov/msprog/vw_info/vsi/vw-zevinvest/documents/c2zevplan_100318.pdf
 - a. CARB Cycle 2 Plan Analysis 11/9/18 - https://www.arb.ca.gov/msprog/vw_info/vsi/vw-zevinvest/documents/cycle_2_staff_analysis_110918.pdf
 - b. Board Hearing 11/16/18 - <https://ww2.arb.ca.gov/ma111518>
 - B. NOx Beneficiary Mitigation Plan

1. Main Page - https://www.arb.ca.gov/msprog/vw_info/vsi/vw-mititrust/vw-mititrust.htm
 2. Beneficiary Mitigation Plan 4/20/18 - https://www.arb.ca.gov/msprog/vw_info/vsi/vw-mititrust/meetings/proposed_bmp.pdf
 3. Board Hearing 5/25/18 - <https://ww2.arb.ca.gov/ma052518>
 4. Staff Presentation 5/25/18 - <https://www.arb.ca.gov/board/books/2018/052518/18-4-4pres.pdf>
- C. Zero Emission Freight & Marine Funding Opportunity
1. \$35M available statewide to support: 1) replacement of airport ground support equipment, port cargo handling equipment, and heavy-lift forklifts with new zero-emission technologies; 2) repower marine engines for ferries, tugboats, and towboats with battery-electric or fuel cell technologies; and 3) install shore power at berths that serve ocean-going vessels.
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 - c. Contact: 1-844-9VW-FUND / CaliforniaVWTrust@baaqmd.gov
14. Clean Transportation Incentive Programs
- A. Main Page - <http://www.arb.ca.gov/msprog/aqip/aqip.htm>
- B. Clean Transportation Incentives Funding Plan
1. Proceeding Main Page - <https://ww2.arb.ca.gov/our-work/programs/low-carbon-transportation-investments-and-air-quality-improvement-program/low-1>
 2. Funding Plan 9/20/19 - <https://ww2.arb.ca.gov/sites/default/files/2019-09/fy1920fundingplan.pdf>
 3. Heavy-Duty Investment Strategy: Funding Plan Appendix D 9/20/19 - <https://ww2.arb.ca.gov/sites/default/files/2019-09/fy1920fundingplan-appd.pdf>
- C. On-Road Advanced Technology Demonstration Solicitation
1. \$17M to demonstrate pre-commercial Intelligent Transportation Systems and Connected Trucks, Advanced Engines and Powertrains, and Zero-Emission Short and Regional Haul Trucks. Eligible vehicle types will be limited to Class 7 and Class 8 (GVWR >26,000 lbs.) on-road heavy heavy-duty trucks focused on freight activities.
 2. Solicitation closed on 8/16/17
 - a. Main Page - <https://www.arb.ca.gov/msprog/aqip/demo.htm>
 - b. Solicitation Documents - <https://www.arb.ca.gov/msprog/aqip/solicitations.htm#fy1617onroaddemo>
 - c. Contact: Earl Landberg - earl.landberg@arb.ca.gov / 916-323-1384
- D. Off-Road Advanced Technology Demonstration Solicitation

1. \$17M to demonstrate advanced port equipment, zero-emission cargo handling equipment, zero-emission ground support equipment, and zero-emission freight locomotive equipment. Non-freight categories such as construction equipment, agricultural equipment, and passenger transportation equipment will also be eligible for a smaller portion of the funding, although the focus will be on technologies that are freight enabling.
 2. Solicitation closed on 9/7/17
 - a. Main Page - <https://www.arb.ca.gov/msprog/aqip/demo.htm>
 - b. Solicitation Documents - <https://www.arb.ca.gov/msprog/aqip/solicitations.htm#fy1617offroaddemo>
 - c. Contact: Earl Landberg - earl.landberg@arb.ca.gov / 916-323-1384
- E. Zero & Near Zero-Emission Freight Facilities Solicitation
1. \$150M statewide; up to \$50M/project to deploy emission-reduction technologies used in freight movement & facilities. Eligible vehicles and equipment types include on-road trucks, cargo handling equipment, marine vessels, locomotives, and others including supporting infrastructure. Freight facility improvements are also eligible and include: preferential queuing, renewable energy generation and storage, and education and outreach efforts that highlight the environmental and economic benefits of transitioning to a zero-emission freight facility.
 2. Solicitation closed on 7/19/18 - <https://www.arb.ca.gov/msprog/aqip/solicitations.htm>
 3. Awards announced 9/26/18 - <https://ww2.arb.ca.gov/news/carb-announces-more-200-million-new-funding-clean-freight-transportation>

NOTES

- No additional updates or announcements.

ii. CEC

1. Main Page: <https://www.energy.ca.gov/>
 - A. Toward a Clean Energy Future video - <https://www.youtube.com/watch?v=FUWwxceHtCk&feature=youtu.be&pp=desktop>
 - B. California Vehicle-Grid Integration Roadmap update, a multi-agency and stakeholder effort- <https://www.energy.ca.gov/transportation/vehicle-grid-integration/>
2. Empower Innovation Network
 - A. Initiative in partnership with clean technology accelerators, fellowship programs, nonprofits, and private partners.
 - B. Managed by Navigant Consulting, Inc. and iCatalysts on behalf of CEC.
 - C. Program strives to accelerate cleantech deployment by providing easy access to funding opportunities, curated resources, and connections to people and organizations working towards a clean economy for all.
 - D. <https://www.empowerinnovation.net/>
3. Integrated Energy Policy Report (IEPR)
 - A. Draft 2019 IEPR released on 11/8/19

1. Proceeding Main Page - https://ww2.energy.ca.gov/2019_energypolicy/
2. Draft IEPR Document 11/8/19 - <https://efiling.energy.ca.gov/getdocument.aspx?tn=230539>
4. CEC Divisions & Highlighted Programs:
 - A. Energy Assessments Division: <https://www.energy.ca.gov/assessments/>
 1. Integrated Energy Policy Report (IEPR): <https://www.energy.ca.gov/energypolicy/>
 - B. Energy Efficiency Programs: <https://www.energy.ca.gov/efficiency/>
 1. Rebates & Incentives: <https://www.energyupgradeca.org/home-energy-efficiency/rebates-incentives/>
 - C. Funding: <https://www.energy.ca.gov/contracts/>
 1. More Funding Information: https://www.energy.ca.gov/newnav/funding_links.html
 - D. Power Plants: <https://www.energy.ca.gov/sitingcases/alphabetical.html>
 1. Status of All Projects: https://www.energy.ca.gov/sitingcases/all_projects.html
 - E. Renewable Energy Programs: https://www.energy.ca.gov/renewables/renewable_links.html
 1. Clean Energy & Pollution Reduction Act SB 350 Overview: <https://www.energy.ca.gov/sb350/>
 2. Electric Program Investment Charge (EPIC): <https://www.energy.ca.gov/research/epic/>
 - F. Energy Research & Development: <https://www.energy.ca.gov/research/>
 1. Funding Opportunities for Energy Research & Development: https://www.energy.ca.gov/research/funding_opportunities.html
 - G. Fuels & Transportation Division: <https://www.energy.ca.gov/programs-and-topics/topics/transportation>
 1. Solicitations for Transportation Area Programs: <https://www.energy.ca.gov/contracts/transportation.html>
 2. School Bus Replacement Program: <https://www.energy.ca.gov/transportation/schoolbus/>
 - a. \$78.7M for school bus replacement (\leq 10 buses/award), \$13M for EVSE infrastructure (\leq \$60k/award), and \$2.4M for CNG infrastructure (\leq \$500k/award).
 - b. Solicitation Documents (closed) - <http://www.energy.ca.gov/contracts/transportation.html#GFO-17-607>
 - c. Notice of Proposed Awards 2/6/19 - https://www.energy.ca.gov/contracts/GFO-17-607_revised_NOPA.pdf
3. Clean Transportation Program Proceedings: <https://www.energy.ca.gov/programs-and-topics/programs/clean-transportation-program>
 - a. CTP Investment Plan
 1. Main Page - <https://www.energy.ca.gov/programs-and-topics/programs/clean-transportation-program/clean-transportation-program-investment>
 2. 2020-2023 Update Proceeding - https://ww2.energy.ca.gov/publications/displayOneReport_cms.php?pubNum=CEC-600-2020-003

3. Staff Report 6/16/20 -
<https://efiling.energy.ca.gov/getdocument.aspx?tn=233495>
- b. Low Carbon Fuel Production
 1. \$20M statewide to support ultra-low-carbon transportation fuel production.
 2. Solicitation Documents (closed) -
<https://www.energy.ca.gov/solicitations/2019-08/gfo-19-601-low-carbon-fuel-production-program>
 3. Notice of Proposed Awards 1/21/20 -
https://www.energy.ca.gov/sites/default/files/2020-01/GFO-19-601_Note_of_Proposed_Awards.pdf
- c. Advanced Freight Vehicle Infrastructure Deployment
 1. \$22.26M statewide; \$1-8M/project to support infrastructure deployment for plug-in electric & hydrogen fuel cell electric Class 3-8 on-highway freight vehicles, as well as related Intelligent Transportation System (ITS) roadside infrastructure.
 2. Solicitation Documents (closed) -
<http://www.energy.ca.gov/contracts/transportation.html#GFO-17-603>
- d. Renewable Hydrogen Transportation Fuel Production Facilities & Systems
 1. \$3.97M statewide to support projects that will design, engineer, construct, install, test, operate & maintain 100% renewable hydrogen facilities in California.
 2. Solicitation Documents (closed) -
<http://www.energy.ca.gov/contracts/transportation.html#GFO-17-602>
 3. Notice of Proposed Awards 10/8/18 -
http://www.energy.ca.gov/contracts/GFO-17-602_NOPA_revised.pdf
- e. Demonstration-Scale Biofuels Production Facilities
 1. \$6M statewide; <\$3M/project to develop the first demonstration-scale biofuel production facility at a site specific location that proves a technology or process in the field, develops an eligible biofuel product, and develops a market for the technology.
 2. Solicitation Documents (closed) -
<https://www.energy.ca.gov/contracts/transportation.html#GFO-18-602>
- f. Community-Scale and Commercial-Scale Advanced Biofuels Production Facilities
 1. \$16.9M statewide; <\$5M/project to support development of low carbon biofuel production projects at new and existing biofuel production facilities; existing biofuel production facilities must

- expand or modify facilities to increase production capacity.
- 2. Solicitation Documents (closed) - <https://www.energy.ca.gov/contracts/transportation.html#GFO-18-601>
- g. Vehicle Technology Outreach, Education, and Collaborative Planning for California's Central Valley
 - 1. \$1M available to support new outreach, education, and collaborative planning activities that will accelerate the adoption of alternative fuels and advanced vehicle technologies in the counties of: Fresno, Kern, Kings, Madera, Mariposa, Merced, San Benito, San Joaquin, Stanislaus, Tulare, and Tuolumne.
 - 2. Solicitation Documents (closed) - <http://www.energy.ca.gov/contracts/transportation.html#GFO-18-603>
 - 3. Revised Notice of Proposed Award 4/11/19 - https://www.energy.ca.gov/contracts/GFO-18-603_Revised_NOPA.pdf
- h. AB2127 EVSE Assessment Proceeding
 - 1. Workshops & Meetings - https://www.energy.ca.gov/2019_energypolicy/documents/index.html
 - 2. Docket Log - <https://efiling.energy.ca.gov/Lists/DocketLog.aspx?docketnumber=19-IEPR-04>
- i. ZEV & Infrastructure Manufacturing Notice of Proposed Award 9/23/19 = \$4.9M - https://www.energy.ca.gov/sites/default/files/2019-09/GFO-18-605_NOPA_Revised.pdf
- j. Characterizing Air Quality Impact from Renewable Natural Gas and Improving Natural Gas System Climate Resilience Notice of Proposed Award = \$2M - https://www.energy.ca.gov/sites/default/files/2020-03/GFO-19-501_NOPA_Cover_Letter_and_Results_ADA.docx
- k. Draft Solicitation Concepts
 - 1. Zero-Emission Transit Fleet Infrastructure Deployment - <https://efiling.energy.ca.gov/getdocument.aspx?tn=232489>
 - 2. Heavy-Duty Zero-Emission Vehicles Block Grant - <https://efiling.energy.ca.gov/getdocument.aspx?tn=232483>
 - 3. Heavy-Duty Zero-Emission Vehicles Blueprints - <https://efiling.energy.ca.gov/getdocument.aspx?tn=232484>
- 4. CEC Research Hub for Electric Technologies in Truck Applications

- a. Intention to release an August 2020 funding opportunity to support the development of a research hub that will help facilitate and accelerate the transformative electrification of the heavy-duty vehicle market through Southern California-based projects.
 1. <https://www.energy.ca.gov/solicitations/2020-08/research-hub-electric-technologies-truck-applications-rhetta>

NOTES

- No additional updates or announcements.

iii. CPUC

1. SB 350 Transportation Electrification Proceeding
 - A. Main Page - <http://www.cpuc.ca.gov/sb350te/>
 - B. Transportation Electrification Framework
 1. Public Review DRAFT - <http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M326/K281/326281940.PDF>
 2. Contact - Ed Pike: 415-703-2257 / Ed.Pike@cpuc.ca.gov
 - C. Summary of Approved Standard Review Projects 5/31/18 - <http://www.cpuc.ca.gov/WorkArea/DownloadAsset.aspx?id=6442457607>
 - D. Summary of Approved Priority Review Projects 1/11/18 - www.cpuc.ca.gov/WorkArea/DownloadAsset.aspx?id=6442455977
 - E. SB 350 (De Leon, 2015) - http://leginfo.legislature.ca.gov/faces/billStatusClient.xhtml?bill_id=201520160SB350
 - F. Contacts
 1. Carrie Sisto/CPUC: Carolyn.Sisto@cpuc.ca.gov / 415-703-2872
 2. Tracy Cheung/PG&E: tbc4@pge.com
 3. Glenn Chung/SCE: Glenn.Chung@sce.com
 - G. EVSE Rates & Infrastructure Rulemaking
 1. Develop rates and infrastructure for vehicle electrification and a comprehensive Transportation Electrification Framework (TEF) to guide the Commission's role in the electrification of California's transportation sector (R.13-11-007).
 2. ZEV Rate Design Forum 6/7-8/18 - <http://www.cpuc.ca.gov/energy/electricrates/>
 3. Rule Language (33 pages) - <http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M250/K030/250030021.PDF>

NOTES

- Extending deadline of TEF proposal comments
 - o New deadline set for 7/14/20
 - o Workshop date TBA

iv. SJVAPCD

1. Technology Advancement Program (TAP)
 - A. Main Page - <http://valleyair.org/grants/technologyadvancement.htm>
 - B. Project Interest Form/Open Solicitation
 1. TAP has shifted from a formal RFP process to a one-page project interest form, which will help streamlining the District's

identification of prospective demonstration project development opportunities.

2. [Direct potential clean air technology demonstration partners to SJVAPCD's TAP webpage:](http://valleyair.org/grants/documents/technologyadvancement/interest-form.pdf)
<http://valleyair.org/grants/documents/technologyadvancement/interest-form.pdf>

C. Past Project Events

1. Verwey Farms Project Press Release 10/7/15 -
https://www.valleyair.org/recent_news/Media_releases/2015/PR-TAP-MPC-event-100115.pdf
2. TransPower-IKEA Project Press Release 10/29/15 -
https://www.valleyair.org/recent_news/Media_releases/2015/PR-TAP-IKEA-Event-102915.pdf
3. eNow-Challenge Dairy Project Press Release 10/11/17 -
http://www.valleyair.org/recent_news/Media_releases/2017/PR_Challenge_Dairy_Tap_10-11-17.pdf

D. Project Selections 3/19/15 -

http://www.valleyair.org/Board_meetings/GB/agenda_minutes/Agenda/2015/March/final/12.pdf

2. Medium-Duty Truck Replacement Program = Up to \$40k/Class 5-6 truck replacement

A. Main Page - <http://valleyair.org/grants/onroadtrucks.htm>

B. Press Release 9/30/15 -
https://www.valleyair.org/recent_news/Media_releases/2015/PR-Truck-Class-5-6-Grant-program.pdf

3. Petition Requesting that EPA Adopt New National Standards for On- Road Heavy-Duty Trucks and Locomotives under Federal Jurisdiction

A. SJVAPCD Press Release & Petition Document 6/22/16 -

http://www.valleyair.org/recent_news/Media_releases/2016/PR-District-Petitions-Federal-Government-06-22-16.pdf

NOTES

- Remote workshop on 7/30 for BART analysis & boiler rules
- 2020 M/HD alternative fuel infrastructure solicitation TBA
 - o Sign up for updates - http://lists.valleyair.org/mailman/listinfo/incentive_program_information

v. SCAQMD

1. Technology Advancement Office (TAO)

A. TAO Main Page - <http://www.aqmd.gov/home/library/technology-research>

2. Petition to EPA for Rulemaking to Adopt Ultra-Low NOx Exhaust Emission Standards for On-Road Heavy-Duty Trucks & Engines

A. Petition Document 6/3/16 -

http://4cleanair.org/sites/default/files/resources/HD_Ultra-Low-NOx_Petition_to_EPA-060316.pdf

B. Petition Appendix 6/3/16 -

http://4cleanair.org/sites/default/files/resources/Petition_Attachments-Ultra-Low-NOx_Petition_to_EPA-060316_0.pdf

- C. 12/20/16 EPA response to the petitions for revised NOx standards for heavy-duty on-highway vehicles & engines.

1. Main Page - <https://www.epa.gov/regulations-emissions-vehicles-and-engines/petitions-revised-nox-standards-highway-heavy-duty>

2. Memorandum - <https://www.epa.gov/sites/production/files/2016-12/documents/nox-memorandum-nox-petition-response-2016-12-20.pdf>

NOTES

- Battery-electric truck demonstration projects w/ DTNA & Volvo moving forward on schedule.

vi. EPA

1. CATI 2020 Work Plan
 - A. See draft 2020 Work Plan attached.
2. Anaerobic Digester Grant Opportunity
 - A. \$3M nationwide; \$50-300k/project to support: 1) organic waste diversion; 2) demonstration and/or implementation of solutions that increase digester utilization; and 3) establishment/expansion of partnerships that develop digester capacity.
 - B. **Applications due by 2PM PDT on 7/14/20**
 1. Main Page – <https://www.epa.gov/sustainable-management-food/sustainable-materials-management-2020-anaerobic-digestion-funding>
 2. Grants.gov Page – <https://www.grants.gov/web/grants/view-opportunity.html?oppId=326903>
3. Clean Air Excellence Awards
 - A. Through this program, EPA recognizes and honors individuals and organizations whose efforts have helped to make progress in achieving cleaner air. The award recipients are selected for developing innovative, replicable, and sustainable programs; serving as pioneers in their fields; and improving air quality either directly or indirectly through reduced emissions of criteria pollutants, hazardous air pollutants, and/or greenhouse gases.
 - B. The five awards categories are: (1) Clean Air Technology; (2) Community Action; (3) Education/Outreach (4) State/Tribal/Local Air Quality Policy Innovations; and (5) Transportation Efficiency Innovations. In addition, the Clean Air Excellence Award Program will recognize two special award categories: (1) the Gregg Cooke Visionary Program Award, honoring a former EPA Regional Administrator, is given to the air quality project or program that successfully blends two or more of the existing awards categories; and (2) the Thomas W. Zosel Outstanding Individual Achievement Award, honoring a former member of the CAAAC and environmental leader at 3M, recognizes one individual for their outstanding achievement, leadership, and lasting commitment to promote clean air and achieve better air quality.
 - C. **Applications due by 2PM PDT on 7/31/20**
 1. Main Page - <https://www.epa.gov/caaac/clean-air-excellence-awards>
 2. Application Documents - <https://www.epa.gov/caaac/clean-air-excellence-awards-application-information>
 3. Contact - Catrice Jefferson: jefferson.catrice@epa.gov
4. West Coast Collaborative Medium & Heavy-Duty Alternative Fuel Infrastructure Corridor Coalition (WCC AFICC)
 - A. Strategic development plan highlighting needed/desired M/HD alternative fuel infrastructure investments in California, Oregon and/or Washington

1. Main Page - <https://westcoastcollaborative.org/workgroup/wkgrp-fuels.htm#plan>
 2. [Full Plan Document \(PDF\)](#) (194 pp, 6.7 MB)
 3. [Executive Summary \(PDF\)](#) (24 pp, 1 MB)
 4. [Highlights Fact Sheet \(PDF\)](#) (2 pp, 232 KB)
 5. [California Fact Sheet \(PDF\)](#) (5 pp, 480 KB)
5. CATI Grants
- A. SJVAPCD
1. FY20 = \$500,000 to support demonstration of utilizing chipped agricultural organic waste for soil incorporation and/or surface application as a lower emission alternative to open burning.
 2. FY19 = \$500,000 to support demonstration of utilizing chipped agricultural organic waste for soil incorporation and/or surface application as a lower emission alternative to open burning of these materials.
 3. FY18 = \$500,000 to support demonstration of: 1) plug-in hybrid electric heavy-duty truck with a compressed natural gas (CNG) microturbine range extender; 2) photovoltaic battery-electric truck refrigeration system; 3) plug-in hybrid medium-duty truck with a CNG internal combustion engine range extender; and 4) low NOx gradual oxidizer for a combined heat & power unit at an ethanol production facility.
 4. FY17 = \$500,000 to support demonstration of: 1) emissions control systems for underfired charbroilers; 2) electrified refrigeration units using solar, battery, and cold plate technologies; 3) plug-in electric/compressed natural gas hybrid medium-duty truck; and 4) electrified dairy feed mixing station.
 5. FY16 = \$500,000 to support demonstration of: 1) emissions control systems for underfired charbroilers; 2) electrified agricultural sprayers; 3) battery-electric yard trucks; as well as to deploy: 1) low emission school buses; and 2) electric agricultural water pumps.
 - a. SJVAPCD TAP Project Selection Board Item 3/19/15 - http://www.valleyair.org/Board_meetings/GB/agenda_minutes/Agenda/2015/March/final/12.pdf
- B. SCAQMD
1. FY20 = \$500,000 to support demonstration of heavy-duty battery-electric drayage trucks and charging infrastructure.
 2. FY18-19 = \$1,000,000 to support demonstration of medium & heavy-duty battery-electric freight trucks and charging infrastructure.
 - a. SCAQMD Board Item 7/12/19: FY19 CATI M/HD BEV Project Approval - <http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2019/2019-jul12-003.pdf>
 - b. SCAQMD Board Item 7/6/18: FY18 CATI M/HD BEV Project Approval - <http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2018/2018-july6-004.pdf>

- c. SCAQMD Press Release 7/6/18 - <http://www.aqmd.gov/docs/default-source/news-archive/2018/scaqmd-and-daimler-trucks-partnership.pdf>
 - 3. FY17 = \$500,000 to support: 1) demonstration of a battery-electric switcher locomotive; and 2) assessment of aftertreatment technologies for ultra-low NOx emission heavy-duty on-highway diesel engines.
 - a. SCAQMD Board Item 7/7/17: FY17 CATI Locomotive Project Approval - <http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2017/2017-jul7-003.pdf?sfvrsn=5>
 - b. SCAQMD Board Item 4/7/17: FY17 CATI HDV Engine Project Approval - <http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2017/2017-apr7-003.pdf?sfvrsn=4>
 - 4. FY16 = \$500,000 to support ultra-low emission natural gas switcher locomotive demonstration.
 - a. SCAQMD Board Item 6/3/16: FY16 CATI Project Approval - <http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2016/2016-jun3-002.pdf?sfvrsn=7>
- 6. EPA Cleaner Truck Initiative
 - A. Main Page - <https://www.epa.gov/regulations-emissions-vehicles-and-engines/cleaner-truck-initiative>
 - 1. Press Release 11/13/18 - <https://www.epa.gov/newsreleases/epa-acting-administrator-wheeler-launches-cleaner-trucks-initiative>
 - 2. OMB OIRA Webpage - <https://www.reginfo.gov/public/do/eAgendaViewRule?pubId=202004&RIN=2060-AU41>
 - B. Advanced Notice of Proposed Rulemaking (ANPR)
 - 1. Press Release 1/6/20 - <https://www.epa.gov/newsreleases/epa-jumpstarts-administrator-wheelers-cleaner-trucks-initiative>
 - 2. Fact Sheet 1/6/20 - <https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockkey=P100YCET.pdf>
 - 3. ANPR Document 1/21/20 – <https://www.govinfo.gov/content/pkg/FR-2020-01-21/pdf/2020-00542.pdf>
 - 4. Docket closed on 2/20/20 (EPA-HQ-OAR-2019-0055) – <https://www.federalregister.gov/documents/2020/01/21/2020-00542/control-of-air-pollution-from-new-motor-vehicles-heavy-duty-engine-standards>
- 7. EPA Aircraft GHG Rulemaking
 - A. Main Page - <https://www.epa.gov/regulations-emissions-vehicles-and-engines/regulations-greenhouse-gas-emissions-aircraft>
 - B. OMB OIRA Status - <https://www.reginfo.gov/public/do/eAgendaViewRule?pubId=202004&RIN=2060-AT26>
 - C. ICAO Carbon Offsetting & Reduction Scheme for International Aviation (CORSIA)

1. Press Release 10/6/16 - <http://www.icao.int/Newsroom/Pages/Historic-agreement-reached-to-mitigate-international-aviation-emissions.aspx>
2. CORSIA Main Page - <http://www.icao.int/environmental-protection/Pages/market-based-measures.aspx>
- D. Endangerment Finding finalized 8/15/16
 1. Fact Sheet – <https://www3.epa.gov/otaq/documents/aviation/420f16036.pdf>
 2. Final Rule - <https://www.gpo.gov/fdsys/pkg/FR-2016-08-15/pdf/2016-18399.pdf>
- E. Advance Notice of Proposed Rulemaking (ANPR) 6/10/15 - Provides information on the process for setting international CO2 emissions standards for aircraft at the International Civil Aviation Organization (ICAO), and describes and seeks input on issues related to setting an international CO2 standard for aircraft, and the potential use of section 231 of the Clean Air Act to adopt a corresponding aircraft engine standard domestically.
 1. Fact Sheet - <https://nepis.epa.gov/Exe/ZyPDF.cgi/P100MLPU.PDF?Dockey=P100MLPU.PDF>
8. DERA Tribal Program
 - A. FY20 RFA closed 7/9/20 = \$2M nationwide; ≤\$800k/application for tribal heavy-duty diesel replacement, repower and retrofit projects.
 1. Main Page - <http://www.epa.gov/cleandiesel/clean-diesel-tribal-grants>
 2. FAQ - https://www.epa.gov/sites/production/files/2020-07/documents/fy20-tribal-qa_7_2_20.pdf
 3. RFA Document - <https://www.epa.gov/sites/production/files/2020-04/documents/2020-4-3-tribal-dera-rfa.pdf>
 - B. Past DERA Tribal awards - <http://www.epa.gov/cleandiesel/clean-diesel-tribal-grants#projects>
 - C. Contact Francisco Donez with questions regarding DERA Tribal projects in California (donez.francisco@epa.gov / 213-244-1834)
9. Targeted Airshed Grant Program
 - A. FY19-20 RFA closed 4/10/20 = ~\$106.5M nationwide; ≤\$20M/application to assist state, local and/or tribal air pollution control agencies in developing plans and implementing projects to reduce air pollution in the nation's most impacted airsheds.
 1. Main Page - <https://www.epa.gov/grants/2019-2020-targeted-airshed-grant-program>
 2. RFA Document - https://www.epa.gov/sites/production/files/2020-03/documents/fy19-20-tag-rfa-final-amend3_03-19-20.pdf
 3. FAQ Document - <https://www.epa.gov/sites/production/files/2020-03/documents/tag-q-a-03-27-2020.pdf>
 - B. Contact Trina Martynowicz with questions regarding TAG projects in California (martynowicz.trina@epa.gov / 415-972-3474)
 - C. (mikulin.john@epa.gov / 415-972-3956).
10. DERA National Program
 - A. FY20 RFA closed on 2/26/20 - ~\$44M nationwide; ≤\$4M/application in Region 9 for heavy-duty diesel replacement, repower and retrofit projects.

1. Main Page - <https://www.epa.gov/cleandiesel/clean-diesel-national-grants>
2. FAQ - <https://www.epa.gov/sites/production/files/2019-12/documents/fy20-dera-qa.pdf>
3. Applicant Webinar Presentation - <https://www.epa.gov/sites/production/files/2019-12/documents/fy20-dera-national-rfa-webinar-2019-12-11.pdf>
4. RFA Document - <https://www.epa.gov/sites/production/files/2019-12/documents/2020-dera-national-grants-competition-12-2019.pdf>
- B. West Coast Collaborative (WCC): DERA Projects in California
 1. FY19 awards announced 10/28/19 = \$11.6M to retrofit, repower, or replace heavy-duty diesel engines & equipment in California - <https://www.epa.gov/newsreleases/us-epa-awards-more-116-million-reduce-diesel-emissions-california>
 2. FY18 awards announced 10/22/18 = \$9.6M to retrofit, repower, or replace heavy-duty diesel engines & equipment in California - <https://www.epa.gov/newsreleases/us-epa-awards-96-million-grants-reduce-harmful-diesel-emissions-california>
 3. Past WCC Project Fact Sheets - <https://westcoastcollaborative.org/projects-list.htm>
- C. Contact Penny McDaniel with questions regarding DERA National grant projects in Region 9 (mcdaniel.penelope@epa.gov / 415-947-4203).
11. DERA School Bus Rebate Program
 - A. FY19 RFA closed on 10/30/19 = \$10M nationwide; \$15-20k/bus for pre-2007 school bus replacements.
 1. Main Page - <https://www.epa.gov/cleandiesel/clean-diesel-rebates>
 2. Application - <https://www.epa.gov/sites/production/files/2019-10/documents/fy19-dera-school-bus-rebate-application.pdf>
 3. FAQ - <https://www.epa.gov/sites/production/files/2019-09/documents/2019-dera-rebates-faq-2019-09-30.pdf>
 4. Program Guide - <https://www.epa.gov/sites/production/files/2019-09/documents/420b19050.pdf>
 - B. Contact John Mikulin with questions regarding DERA rebate project development in California (mikulin.john@epa.gov / 415-972-3956).
12. DERA State Clean Diesel Program
 - A. Main Page – <https://www.epa.gov/cleandiesel/clean-diesel-state-allocations>
 - B. Contact Dana Mayfield with questions regarding DERA State projects in California (mayfield.dana@epa.gov / 415-972-3008).
13. Volkswagen Diesel Settlement Funding
 - A. Funding
 1. NOx Mitigation = \$2.7B nationwide; \$423M in CA
 2. ZEV Investment = \$2B nationwide; \$800M in CA
 - B. EPA Main Page - <https://www.epa.gov/enforcement/volkswagen-clean-air-act-civil-settlement>
 - C. CARB Main Page - https://www.arb.ca.gov/msprog/vw_info/vw-diesel-info/vw-diesel-info.htm
 - D. VW Settlement Program Page - <https://www.vwcourtsettlement.com/en/>
 - E. VW ZEV Investment Plan Page - <https://www.electrifyamerica.com/our-plan>
14. EPA/NHTSA Heavy-Duty GHG Phase 2 Standards

- A. Final rule announced 8/16/16. Establishes GHG emission and fuel economy standards for model year 2021-2027 medium & heavy-duty on-highway vehicles.
 - 1. Main Page – <https://www.epa.gov/regulations-emissions-vehicles-and-engines/regulations-greenhouse-gas-emissions-commercial-trucks>
- 15. NHTSA/EPA Light-Duty CAFE & GHG Final Rule for Model Years 2021-2026
 - A. EPA Main Page - <https://www.epa.gov/regulations-emissions-vehicles-and-engines/safer-affordable-fuel-efficient-safe-vehicles-final-rule>
- 16. EPA Renewable Fuel Standard (RFS)
 - A. Main Page - <https://www.epa.gov/renewable-fuel-standard-program>
- 17. EPA Ground-Level Ozone NAAQS Update
 - A. EPA strengthened the NAAQS for ground-level ozone to 70 ppb on 10/1/15 (vs. 75 ppb 2008 standard).
 - 1. Main Page - <https://www.epa.gov/ozone-pollution/2015-national-ambient-air-quality-standards-naaqs-ozone>
 - 2. Overview Factsheet - https://www.epa.gov/sites/production/files/2015-10/documents/overview_of_2015_rule.pdf

NOTES

- See notes immediately above.

vii. US DOE

- 1. Vehicle Technologies Office (VTO)
 - A. Main Page - <http://energy.gov/eere/vehicles/vehicle-technologies-office>
 - B. Performance-Advantaged Biofuel Projects
 - 1. Selections announced 7/2/20 = \$1.94M for 7 research and development projects intended to accelerate the adoption of performance-advantaged biofuels.
 - a. Press Release 7/2/20 - <https://www.energy.gov/eere/articles/departement-energy-selects-seven-projects-accelerate-adoption-performance-advantaged>
 - C. Advanced Vehicle Technologies Research
 - 1. FY20 Funding Opportunity Announcement (FOA) 1/23/20 = \$133M nationwide; ≤\$7.5M/application to support research in: 1) advanced batteries and electrification; 2) advanced engine and fuel technologies; 3) lightweight materials; 4) energy efficient mobility systems; and 5) alternative fuels technology demonstrations.
 - a. Press Release 1/23/20 - <https://www.energy.gov/eere/articles/doe-announces-133-million-accelerate-advanced-vehicle-technologies-research>
 - 2. Solicitation closed 4/30/20
 - a. EERE Exchange Posting - <https://eere-exchange.energy.gov/#FoaId0479e8d2-3ad8-4964-ab4b-b665b77029d5>
 - b. FOA Document - <https://eere-exchange.energy.gov/FileContent.aspx?FileID=d22e0c6f-4cf3-465d-ad69-d0be26e1ea3f>

- c. Grants.gov Page - <https://www.grants.gov/web/grants/search-grants.html?keywords=de-foa-0002197>
 - d. Contact: DE-FOA-0002197@netl.doe.gov
 - 3. FY19 selections announced 8/16/19 - \$59M nationwide to support research in: 1) advanced batteries and electric drive systems, 2) energy efficient mobility systems, 3) materials for more efficient powertrains, 4) co-optimized advanced engine and fuel technologies, and 5) alternative fuels and new mobility options.
 - a. Press Release - <https://www.energy.gov/articles/doe-announces-59-million-and-43-projects-accelerate-advanced-vehicle-technologies-research>
 - b. Project List - https://www.energy.gov/sites/prod/files/2019/08/f65/FY19%20VTO%20selections%20table-for%20release_updated_0.pdf
 - 4. FY18 selections announced 9/5/18 - 42 projects totaling \$80M to support advanced vehicle technologies that can enable more affordable mobility, strengthen domestic energy security, reduce our dependence on foreign sources of critical materials, and enhance U.S. economic growth. This work supports DOE's goal to invest in early-stage research of transportation technologies that can give families and businesses greater choice in how they meet their mobility needs.
 - a. Press Release - <https://www.energy.gov/articles/department-energy-announces-80-million-investment-advanced-vehicle-technologies-research>
 - b. Project List - https://www.energy.gov/sites/prod/files/2018/09/f55/FY18_DE-FOA-0001919_SelectionTable.pdf
- D. Bioenergy Research & Development
- 1. FY20 Funding Opportunity Announcement (FOA) 1/23/20 = \$97M nationwide; ≤\$10M/application to support research in: 1) Feedstock Supply and Logistics; 2) Advanced Algal Systems; 3) Conversion Technologies; 4) Advanced Development and Optimization; and 5) Strategic Analysis and Crosscutting Sustainability.
 - a. Press Release 1/23/20 - <https://www.energy.gov/eere/articles/department-energy-announces-nearly-100-million-bioenergy-research-and-development>
 - 2. Solicitation closed 4/30/20
 - a. EERE Exchange Posting - <https://eere-exchange.energy.gov/default.aspx#FoaId23bcb339-aa53-4821-9421-d109747cb168>
 - b. FOA Document - <https://eere-exchange.energy.gov/FileContent.aspx?FileID=42150026-9f85-46dd-9db9-2f3da59a4213>
 - c. Contact: FY20BETOMultiTopicFOA@ee.doe.gov

3. FY19 selections announces 10/1/19 = \$73M nationwide to support 35 projects that will help reduce the price of drop-in biofuels, lower the cost of biopower, and enable high-value products from biomass, or waste resources.
 - a. Press Release 10/1/19 - <https://www.energy.gov/articles/department-energy-announces-73-million-35-projects-bioenergy-research-and-development-0>
 - b. Selected Projects - <https://www.energy.gov/eere/bioenergy/bioenergy-technologies-office-fiscal-year-2019-funding-opportunity-announcement-0>
- E. Battery Recycling Prize
 1. Selections announced 9/25/19 = \$1M nationwide; 15 awards for \$67000 each to support projects focused on cost-effective recycling processes to reclaim and recycle critical materials (e.g., cobalt and lithium) from spent lithium-ion batteries.
 2. Press Release 9/25/19 - <https://www.energy.gov/eere/articles/energy-department-announces-phase-1-winners-battery-recycling-prize>
- F. Heavy-Duty Truck & Off-Road Vehicle Funding Opportunity Announcement
 1. \$50M nationwide to support innovative research for heavy-duty truck, off-road vehicle, and related fuel technologies. Priority research topics include: 1) gaseous fuels (natural gas, biopower & hydrogen); 2) heavy-duty freight electrification; 3) heavy-duty hydrogen infrastructure; 4) heavy-duty hydrogen fuel cells; 5) energy efficient off-road vehicles.
 2. Selections announced 7/29/19
 - a. Press Release - <https://www.energy.gov/articles/department-energy-announces-50-million-commercial-truck-road-vehicle-and-gaseous-fuels-0>
 - b. Selected Projects - https://www.energy.gov/sites/prod/files/2019/07/f65/FY19%20MD-HD%20Truck%20selections%20table_0.pdf
- G. Natural Gas Engine and Vehicles Research and Development
 1. 9 projects totaling \$18M to support: 1) reducing the total cost of ownership, 2) increasing vehicle efficiency, 3) decreasing local air pollution, and 4) advancing technology development to increase the use of more affordable medium and heavy-duty natural gas engines and vehicles.
 2. Selections announced 3/6/19 - <https://www.nrel.gov/news/press/2019/nrel-announces-new-projects-to-advance-medium-and-heavy-duty-natural-gas-vehicle-technologies.html>
- H. Off-Road Vehicle Fluid-Power Systems Research Funding Opportunity Announcement
 1. \$3M nationwide; \$1-1.5M/project for early-stage, high-risk research related to off-road vehicle fluid-power systems. Opportunities exist to improve the efficiency of off-road vehicle

fluid-power systems, including construction, mining, and farm equipment. Projects competitively selected through this funding opportunity will complement additional early-stage research on mobile fluid-power systems at DOE national laboratories.

- a. Mobile Fluid Power Workshop 9/12/17 -

<https://www.nrel.gov/transportation/mobile-fluid-power-workshop.html>

2. Selections announced 3/6/18 -

<https://www.energy.gov/eere/articles/department-energy-announces-12-million-early-stage-research-natural-gas-engines-and>

I. Batteries & Electrification to Enable Extreme Fast Charging Funding Opportunity Announcement

1. \$15M nationwide; \$500k-\$5M/project to encourage the development of plug-in electric vehicle systems that can recharge rapidly at high power levels, decreasing charge time to 15 minutes or less. Advanced battery projects will focus on early-stage research of battery cells that can enable extreme fast charging, while electrification projects will support the development and verification of electric drive systems and infrastructure for extreme fast charging (400 kW).

- a. Fast Charging Gap Assessment 10/2/17 -

https://energy.gov/sites/prod/files/2017/10/f38/XFC%20Technology%20Gap%20Assessment%20Report_FINAL_10202017.pdf

2. Selections announced 9/5/18 -

<https://www.energy.gov/articles/department-energy-announces-80-million-investment-advanced-vehicle-technologies-research>

J. Medium/Heavy-Duty On-Road Natural Gas Engine Research & Development Funding Opportunity Announcement

1. \$4M nationwide; \$1-2M/project to enable natural gas engines that can cost-effectively achieve diesel-like efficiency while meeting current and future emissions standards. A complete engine development project is outside the scope of this effort, but engine subsystem research must have a plausible pathway to higher engine efficiency. Emission control technology projects addressing criteria pollutants and GHGs are desired, with consideration that future standards are likely to influence NGV technology adoption. Potential technologies include (but are not limited to) combustion strategies, engine subsystems, emission control systems, fuel systems, and controls.

- a. Natural Gas Vehicle Research Workshop 7/25/17 -

<https://www.nrel.gov/transportation/ngv-research-workshop.html>

2. Selections announced 3/6/18 -

<https://www.energy.gov/eere/articles/department-energy-announces-12-million-early-stage-research-natural-gas-engines-and>

2. Hydrogen & Fuel Cell Technologies Office (HFTO)

- A. Main Page - <https://www.energy.gov/eere/fuelcells/hydrogen-and-fuel-cell-technologies-office>

- B. H2@Scale Cooperative Research & Development Agreement (CRADA)
Request for Proposals
1. FY20 CRADA RFP = \$24M nationwide to support research & development partnerships focused on: 1) hydrogen fueling technologies for medium- and heavy-duty fuel cell vehicles; and 2) technical barriers to hydrogen blending in natural gas pipelines.
 2. **Proposals due by 4PM PDT on 7/31/20**
 - a. Press Release 7/1/20 - <https://www.energy.gov/eere/articles/doe-announces-request-proposals-h2scale>
 - b. CRADA Solicitation Page - <https://www.nrel.gov/hydrogen/h2-at-scale-crada-call.html>
 - c. SAM.gov Page - <https://beta.sam.gov/opp/8d898c4057d1497ba26d52d508bc595d/view>
 - d. Contact: H2atScaleCRADACall@nrel.gov
- C. H2@Scale New Markets
1. FY20 Funding Opportunity Announcement (FOA) 1/23/20 - <https://www.energy.gov/eere/articles/energy-department-announces-64m-advance-h2scale-new-markets>
 2. FOA closed 4/20/20 = \$64M nationwide; ≤\$9M/application to support research in: 1) Electrolyzer Manufacturing; 2) Carbon Fiber for Compressed Storage Tanks; 3) Heavy-Duty Fuel Cells; 4) HySteel - hydrogen in steel manufacturing/iron refining; 5) New Markets Demonstrations; and 6) Training and Workforce Development
 - a. EERE Exchange Posting - <https://eere-exchange.energy.gov/default.aspx#FoaId989bfa31-9f1b-4c1b-8e1c-f0ffcc9b6a96>
 - b. FOA Document - <https://eere-exchange.energy.gov/FileContent.aspx?FileID=7a6ec1ce-a59e-45d7-8c74-f70b07a18928>
 - c. Contact: FCTOFOA@ee.doe.gov
 3. FY19 selections announced 8/15/19 = \$40M nationwide for 29 projects to support research on advance hydrogen storage and infrastructure technologies, and innovative hydrogen production and utilization concepts including grid resiliency
 - a. Press Release - <https://www.energy.gov/articles/department-energy-announces-40-million-funding-29-projects-advance-h2scale>
 - b. Project List - <https://www.energy.gov/sites/prod/files/2019/08/f65/fcto-fy19-h2-at-scale-foa-selections.pdf>
- D. US Army TARDEC Partnership
1. MOU 10/9/18 - <https://www.energy.gov/eere/articles/energy-department-and-army-tardec-collaborate-hydrogen-and-fuel-cells-military-use>
 - a. Press Release 10/8/19 - <https://www.energy.gov/eere/fuelcells/articles/us-department-energy-and-us-army-collaborate-develop-hydrogen-fuel-cell>

- b. DOD Partnership Video -
https://www.youtube.com/watch?v=oYYSHxsxGUE&feature=youtu.be&fbclid=IwAR32XEJRlmmLC-tux7MUR3SQ1t0GQRcqyK_AT_186YIdi_oLlyQwhv92ns_o
 2. FY20 DOE-DOD joint FOA 1/31/20 = \$1.1M to support development of an advanced fuel truck technology concept known as H2Rescue. The H2Rescue is a fuel cell/battery hybrid truck that first responders and the military can drive to disaster mitigation sites. It can provide sufficient hydrogen to provide power, heat, and even potable water for up to 72 hours.
 - a. Solicitation closed 4/30/20
 - b. Grants.gov Page -
<https://www.grants.gov/web/grants/view-opportunity.html?oppId=324056>
 - E. Multi-Sector Uses of Hydrogen Request for Information
 1. FCTO seeks feedback on opportunities to enable high volume production and multi-sector use of hydrogen.
 2. RFI closed on 10/31/18
 - a. Press Release 8/1/18 -
<https://www.energy.gov/eere/articles/energy-department-releases-request-information-multi-sector-uses-hydrogen>
 - b. EERE Exchange Posting - <https://eere-exchange.energy.gov/Default.aspx#FoaId1ddb34fb-34d0-4b46-a616-2230beafb6b6>
 - F. Hydrogen & Fuel Cell Technologies FOA Project Selections
 1. 28 projects totaling \$38M to support early-stage research and development of innovative hydrogen and fuel cell technologies. This work also supports the DOE's H2@Scale initiative to produce and use hydrogen across multiple energy sectors.
 2. Selections announced 8/14/18 -
<https://www.energy.gov/articles/secretary-perry-announces-38-million-new-projects-support-innovative-hydrogen-and-fuel-cell>
 3. Project List -
https://www.energy.gov/sites/prod/files/2018/08/f54/fcto-fy18-foa-selections_0.pdf
 3. Advanced Manufacturing Office
 - A. Main Page - <https://www.energy.gov/eere/amo/advanced-manufacturing-office>
 4. Advanced Research Projects Agency-Energy (ARPA-E)
 - A. Main Page - <https://arpa-e.energy.gov/>
 5. Bioenergy Research & Development
 - A. 36 projects totaling \$80 million to support early-stage bioenergy research and development (R&D). These projects will enable cost-competitive, drop-in renewable hydrocarbon fuels, bio-based products, and power from non-food biomass and waste feedstocks. This work supports DOE's goal of reducing the cost of bio-based drop-in fuels to \$3/gallon by 2022 to continue to provide consumers with affordable, reliable transportation energy choices.

- B. Selections announced 9/4/18 - <https://www.energy.gov/articles/departments-energy-announces-36-projects-bioenergy-research-and-development>
- C. Project List - <https://www.energy.gov/eere/bioenergy/bioenergy-technologies-office-fiscal-year-2018-funding-opportunity-announcement>

NOTES

- DOE-DOD H2@Rescue project selections TBA soon.
- H2@Scale New Markets FY20 FOA selections TBA soon (~\$64M total DOE assistance).
- DOE Fuel Cell Technology Office recently changed its name to the “Hydrogen & Fuel Cell Technology Office” (HFTO).

viii. US DOT & Caltrans

1. FHWA Alternative Fuel Corridor Designations

- A. FAST Act: Section 1413 requires US DOT to designate national electric vehicle charging, hydrogen, propane and natural gas fueling corridors.

1. Main Page -

http://www.fhwa.dot.gov/environment/alternative_fuel_corridors/

- B. Alternative Fuel Corridor Round 4 Designations announced on 6/24/20

- 1. Selected portions of 100 Interstates and 76 US Highways/State Routes that will serve as the basis for a national network of alternative fuel corridors spanning 49 states.

a. Request for Nominations -

https://www.fhwa.dot.gov/environment/alternative_fuel_corridors/resources/rfn4.cfm

- C. Alternative Fuel Corridor Program

1. Corridor Maps -

http://www.fhwa.dot.gov/environment/alternative_fuel_corridors/maps/

2. Frequently Asked Questions -

https://www.fhwa.dot.gov/environment/alternative_fuel_corridors/resources/faq/index.cfm

3. Signage Ready Designations -

http://www.fhwa.dot.gov/environment/alternative_fuel_corridors/ready/signageready.pdf

4. Signage Pending Designations -

http://www.fhwa.dot.gov/environment/alternative_fuel_corridors/pending/signagepending.pdf

- 5. Manual on Uniform Traffic Control Devices (MUTCD): Signing for Designated Alternative Fuels Corridors 12/21/16 -

http://www.fhwa.dot.gov/environment/alternative_fuel_corridors/resources/mutcd122116.pdf

6. Contacts:

- a. Diane Turchetta - Diane.Turchetta@dot.gov / 202-493-0158

- b. Mike Scarpino - Michael.Scarpino@dot.gov / 617-494-3373

- c. Stephen Costa - Stephen.Costa@dot.gov / 617-494-3852

- d. Sara Secunda (GIS/shapefiles) - Sara.Secunda@dot.gov / 617-494-3601

7. Email Listserv Sign Up -
https://public.govdelivery.com/accounts/USDOTFHWAHEP/subscriber/new?topic_id=USDOTFHWAHEP_50
2. MARAD Maritime Energy Efficiency Pilot/Demonstration
 - A. FY20 Request for Proposals (RFP) 4/8/20 = \$1M available ($\leq 50\%$ total federal cost-share) to support demonstration of hybrid technology for workboat main propulsion or generator sets.
 - B. Solicitation closed on 6/8/20
 1. SAM.gov Page -
<https://beta.sam.gov/opp/943e85fdbac14fe7b84ff9b0b06c6a72/view>
 2. RFP Document -
https://beta.sam.gov/api/prod/ops/v3/opportunities/resources/files/e4acc3c80fb4415f90fbada326941625/download?api_key=null&token=
3. National Freight Strategic Plan (NFSP): Request for Information
 - A. Requesting public comments on refinement of the NFSP.
 1. Main Page - <https://www.transportation.gov/freight>
 - B. Comments period closed on 2/10/20
 1. Main Page - <https://www.transportation.gov/regulations-fr/notices/2019-27897>
 2. RFI Document - <https://www.govinfo.gov/content/pkg/FR-2019-12-27/pdf/2019-27897.pdf>
 3. Federal Register Page -
<https://www.federalregister.gov/documents/2019/12/27/2019-27897/national-freight-strategic-plan-request-for-information>
 4. Docket Page - <https://www.regulations.gov/docket?D=DOT-OST-2019-0184>
 5. 2016 NFSP Draft -
https://www.transportation.gov/sites/dot.gov/files/docs/DRAFT_NFSP_for_Public_Comment_508_10%2015%2015%20v1.pdf
4. Caltrans Excellence in Transportation (EIT) Awards
 - A. EIT awards recognize excellence in transportation design, construction, traffic operations, maintenance, planning, and improvements throughout California.
 1. Open to Caltrans districts and programs, local and public transportation agencies, and private engineering and consulting firms.
 2. Public transportation improvements or projects currently in use and completed since January 1, 2017, are eligible.
 - B. Solicitation closed on 3/16/20
 1. Main Page - <https://dot.ca.gov/programs/public-affairs/eit-awards>
 2. Contact - Caroline Moreno: 916-653-8879 /
Caroline.Moreno@dot.ca.gov
5. FTA Low or No Emission (Low-No) Bus Program
 - A. Main Page - <https://www.transit.dot.gov/funding/grants/lowno>
 - B. FY20 awards announced 6/2/19 = \$130M nationwide to support the deployment of transit buses and infrastructure that use advanced propulsion technologies.

1. Press Release - <https://www.transit.dot.gov/about/news/us-department-transportation-announces-130-million-grants-nationwide-projects-expand>
2. Selected Projects - <https://www.transit.dot.gov/funding/grants/fiscal-year-2020-low-or-no-emission-low-no-bus-program-projects>
- C. FY19 awards announced 7/26/19 = \$84.9M nationwide to support the deployment of transit buses and infrastructure that use advanced propulsion technologies.
 1. Press Release - <https://www.transit.dot.gov/about/news/us-department-transportation-announces-85-million-grants-projects-nationwide-expand>
 2. Selected Projects - <https://www.transit.dot.gov/funding/grants/fiscal-year-2019-low-or-no-emission-low-no-bus-program-projects>
 3. Implementation Guidance - <https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/funding/grants/grant-programs/133356/fy19-low-no-frn-project-selections.docx>
6. FTA Bus & Facilities Infrastructure Investment Program
 - A. Main Page - <https://www.transit.dot.gov/bus-program>
 - B. FY20 Notice of Funding Opportunity (NOFO) announced 1/30/20 = \$454.6M nationwide; ≤\$45.46M/application to assist in the financing of buses and facilities capital projects, including replacing, rehabilitating, purchasing or leasing buses or related equipment, and rehabilitating, purchasing, constructing or leasing bus-related facilities.
 1. NOFO Announcement 1/30/20 - <https://www.transit.dot.gov/funding/applying/notices-funding/grants-buses-and-bus-facilities-fy2020-notice-funding>
 - C. Solicitation closed on 3/30/20
 1. NOFO Document - <https://www.govinfo.gov/content/pkg/FR-2020-01-30/pdf/2020-01614.pdf>
 2. Grants.gov Page - <https://www.grants.gov/web/grants/view-opportunity.html?oppId=324025>
 3. Contact - Mark Bathrick: 202-366-9955 / mark.bathrick@dot.gov
7. California Freight Mobility Plan (CFMP)
 - A. The CFMP governs California's planning activities and capital investments with respect to freight movement.
 1. Main Page - https://dot.ca.gov/programs/transportation-planning/freight-planning/ca-freight-advisory-committee/cfmp_2020
 2. DRAFT CFMP: Chapters 1-6 (343 pages) - <https://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/freight-cfmp-2019-draft/00-cfmpdraftchapter17final.pdf>
 3. DRAFT CFMP: Appendices (155 pages) - <https://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/freight-cfmp-2019-draft/00-cfmpdraftappendicesfinal.pdf>
 4. Email Listserv Sign Up - <https://forms.dot.ca.gov/lc/content/xfaforms/profiles/default.html?c>

[ontentRoot=repository%3A%2F%2F%2FApplications%2FCFMP%2F1.0%2FForms&template=CFMP_GetInvolved.xdp&dataRef](#)

- B. Caltrans Freight Planning
 1. Main Page - <https://dot.ca.gov/programs/transportation-planning/freight-planning>
 2. FHWA MAP-21 Freight Provision Fact Sheet - <https://www.fhwa.dot.gov/map21/factsheets/freight.cfm>
 3. California Freight Advisory Committee (CFAC) Page - <https://dot.ca.gov/programs/transportation-planning/freight-planning/ca-freight-advisory-committee>
 4. California Sustainable Freight Action Plan (CSFAP) Document 7/27/16 - https://ww2.arb.ca.gov/sites/default/files/2019-10/CSFAP_FINAL_07272016.pdf
8. FTA Zero Emission Research Opportunity (ZERO) Program
 - A. Main Page - <https://www.transit.dot.gov/zero-emission-research-opportunity-zero>
 - B. \$2.75M nationwide to facilitate the advancement, production, and deployment of zero-emission public transportation vehicle technology and related infrastructure. Eligible applicants are limited to nonprofit organizations leading a consortium of entities, including state and local governments and at least one provider of public transportation.
 1. Solicitation closed on 2/21/17 - <https://www.transit.dot.gov/funding/grants/grant-programs/zero-emission-research-opportunity-zero>
9. Fostering Advancements in Shipping and Transportation for the Long-term Achievement of National Efficiencies (FASTLANE) Grant Program
 - A. \$800M-\$1B/yr nationwide for projects that address major issues facing our nation's highways, bridges and freight infrastructure.
 - B. Main Page - <https://www.transportation.gov/buildamerica/infragrants>
 - C. Fact Sheet - <https://www.fhwa.dot.gov/fastact/factsheets/fastlanegrantsfs.cfm>
10. Fixing America's Surface Transportation (FAST) Act
 - A. Main Page & Summary - <http://transportation.house.gov/fast-act/>
 - B. Caltrans Bill Analysis 12/11/15 - <http://www.dot.ca.gov/hq/transprog/map21/reauthorization/ca-fedtranliaison-fastactmemo.pdf>

NOTES

- No additional updates or announcements.

5) Next Steps & Action Items (*Time Permitting*)

- a. Discuss action items related to CATI partner agency collaboration/coordination.
- b. Discuss future CATI Liaison agenda items.
- c. Next CATI Liaisons teleconference – Thursday 8/13/20, 10:00-11:00AM PDT/1:00-2:00PM EDT

NOTES

- See notes at top.

Specialist, Technology & Partnerships
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